Ground-Water Modeling with Analytic Elements: cultivating understanding of ground water systems Part III

6/7/01

Click here to start

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Home Page:
http://www.epa.gov/athens/software/whaem/index.html

Ground-Water Modeling with Analytic Elements:

cultivating *understanding* of ground water systems

Part III

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The University of Georgia

EPA United States Environmental Protection Agency

Outline

I. Introduction

II. AEM Basics

III. AEM Applications

IV. Future

III. AEM Applications

- Modeling of regional groundwater flow near proposed nuclear waste repository --- Yucca Mountain, NV
- Delineation of source water area for public water wells --- Vincennes, IN

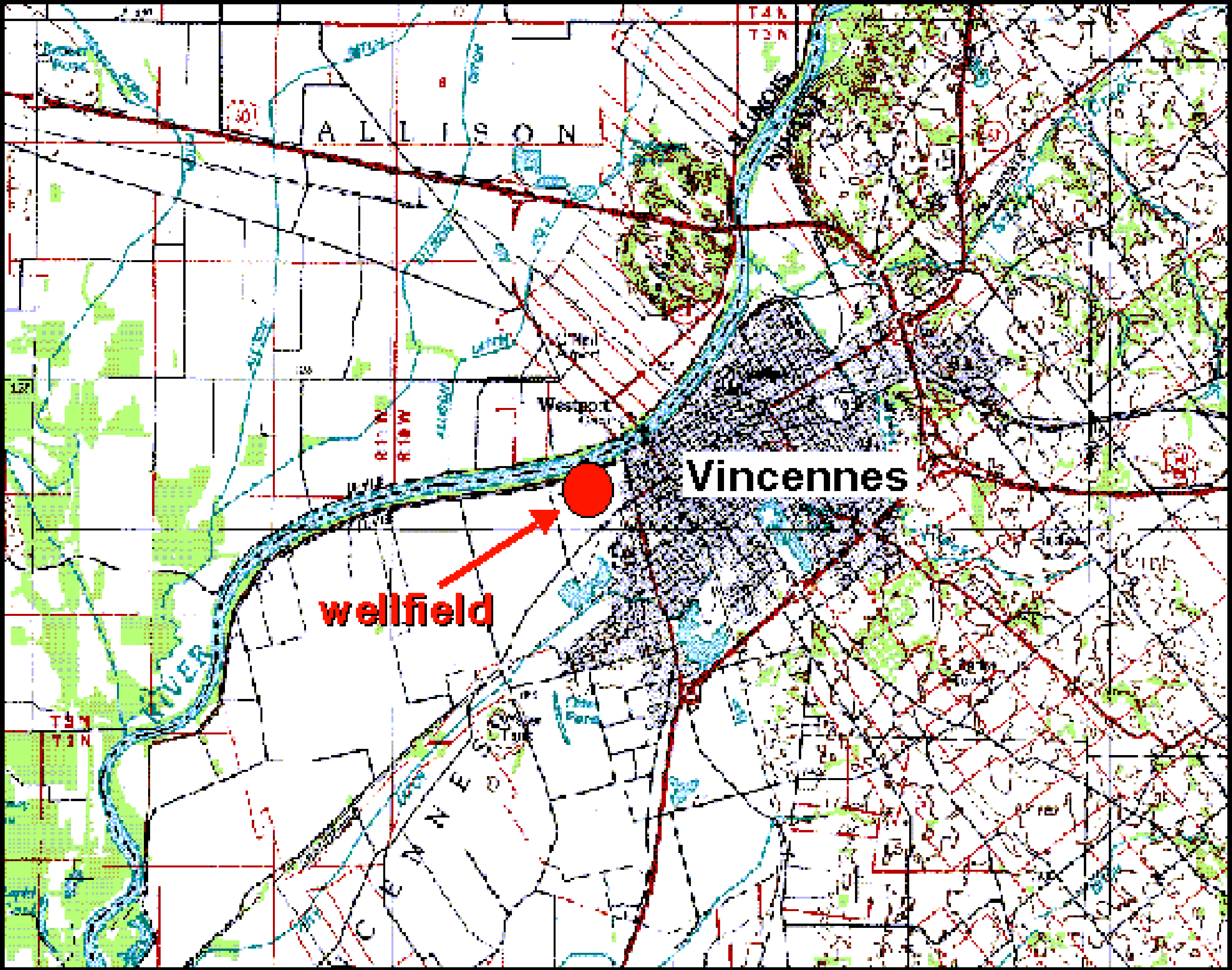
EPA/600/R-00/022

Working with WhAEM2000

Source Water Assessment for a Glacial Outwash Wellfield, Vincennes, Indiana

Steve Kraemer, EPA Athens, GA
Henk Haitjema, Indiana University, Bloomington, IN
Vic Kelson, WHPA Inc., Ellettsville, IN

step-wise approach →

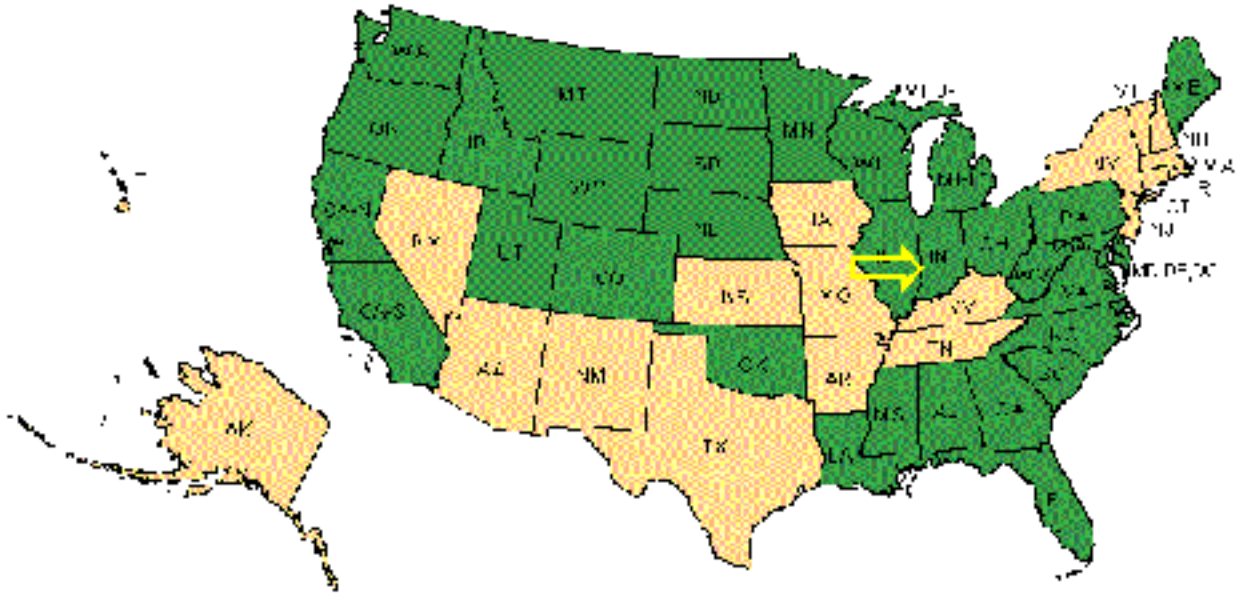


ALLISON
Westport
Vincennes
wellfield
RIVER
T 4 N
T 3 N

EPA
United States
Environmental Protection
Agency

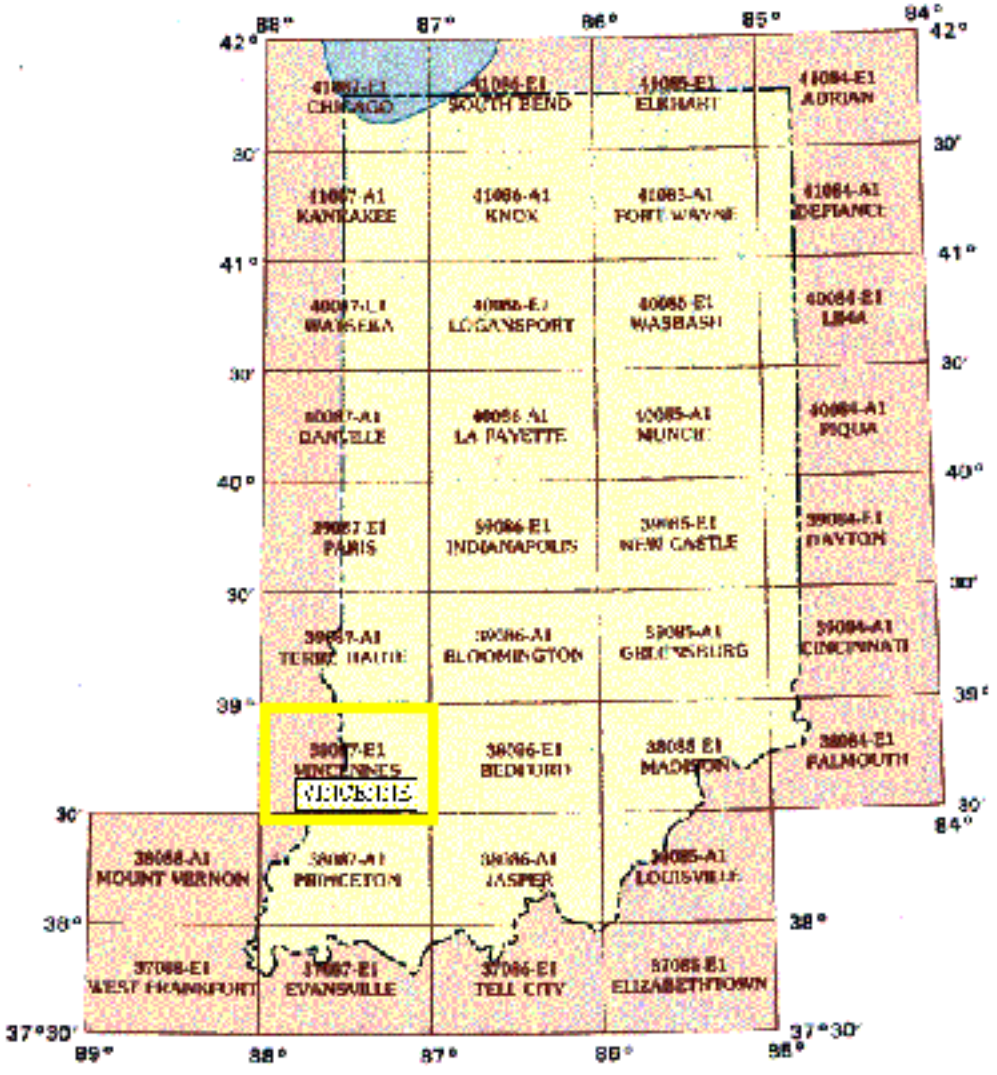
CENTER FOR EXPOSURE ASSESSMENT MODELING
WhAEM - Binary Base Map Browser and Data

Select a state shaded in green. Detail instructions are available.

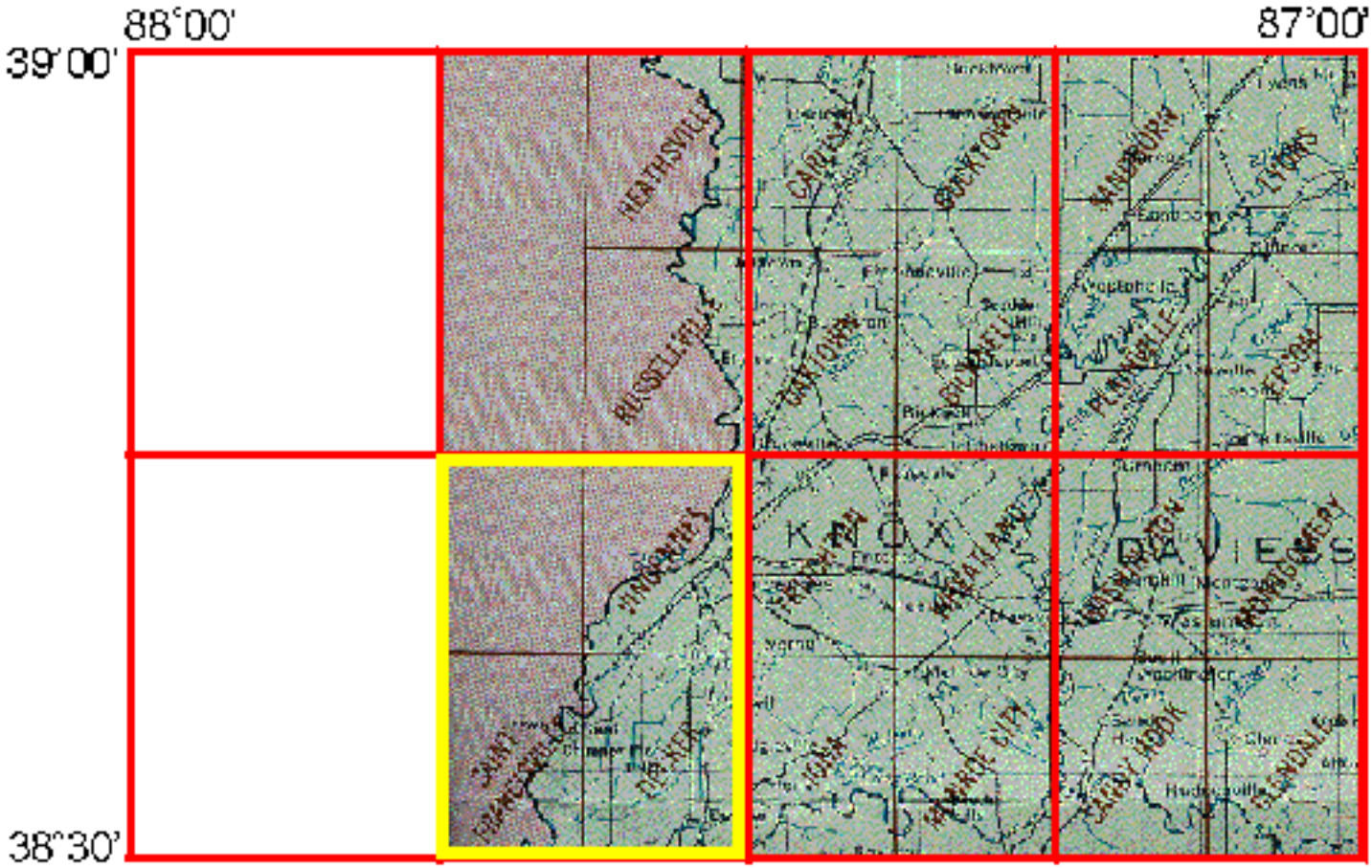


Courtesy of OAO Corporation, Athens
Jim Evans, CorelDraw Graphics
Allen Rowell, Perl Scripts
Stephen Alberty, HTML Support

Click on a 30 x 60 Minute Map from the IN map below. Detail instructions are available.

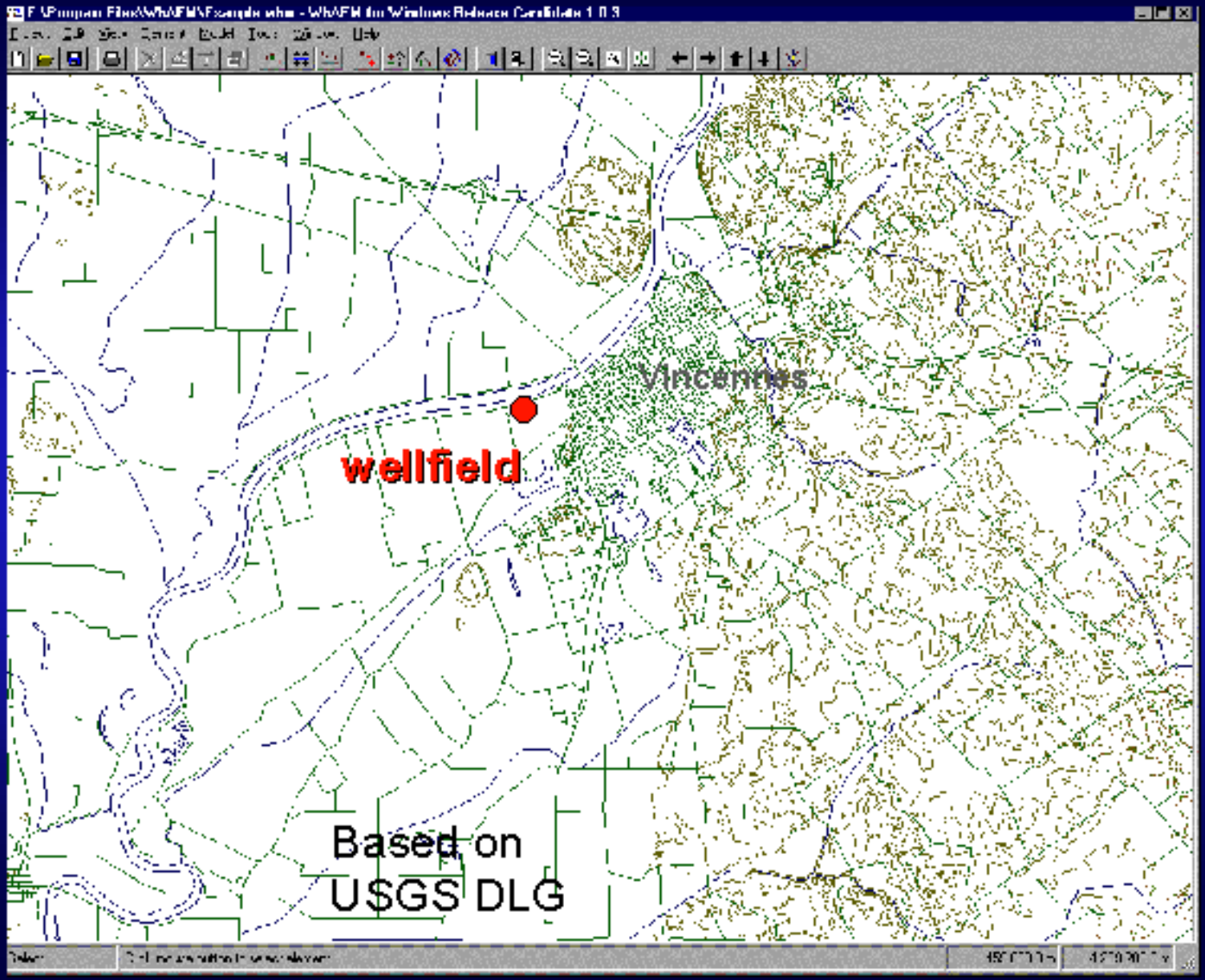


Click on a 15 x 15 minute map within the VINCENNES IN quadrangle below. Detail instructions are available.

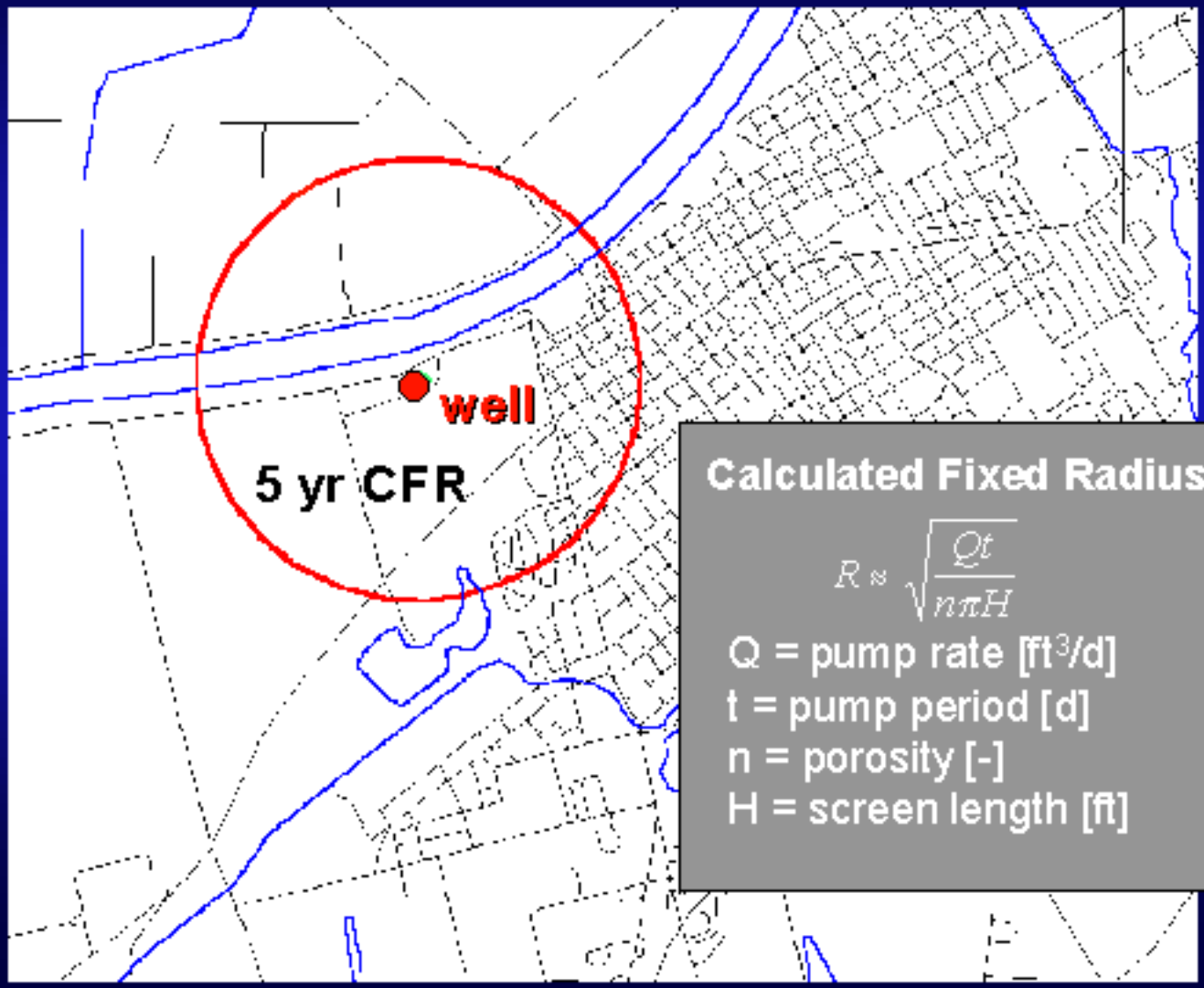


WhAEM2000

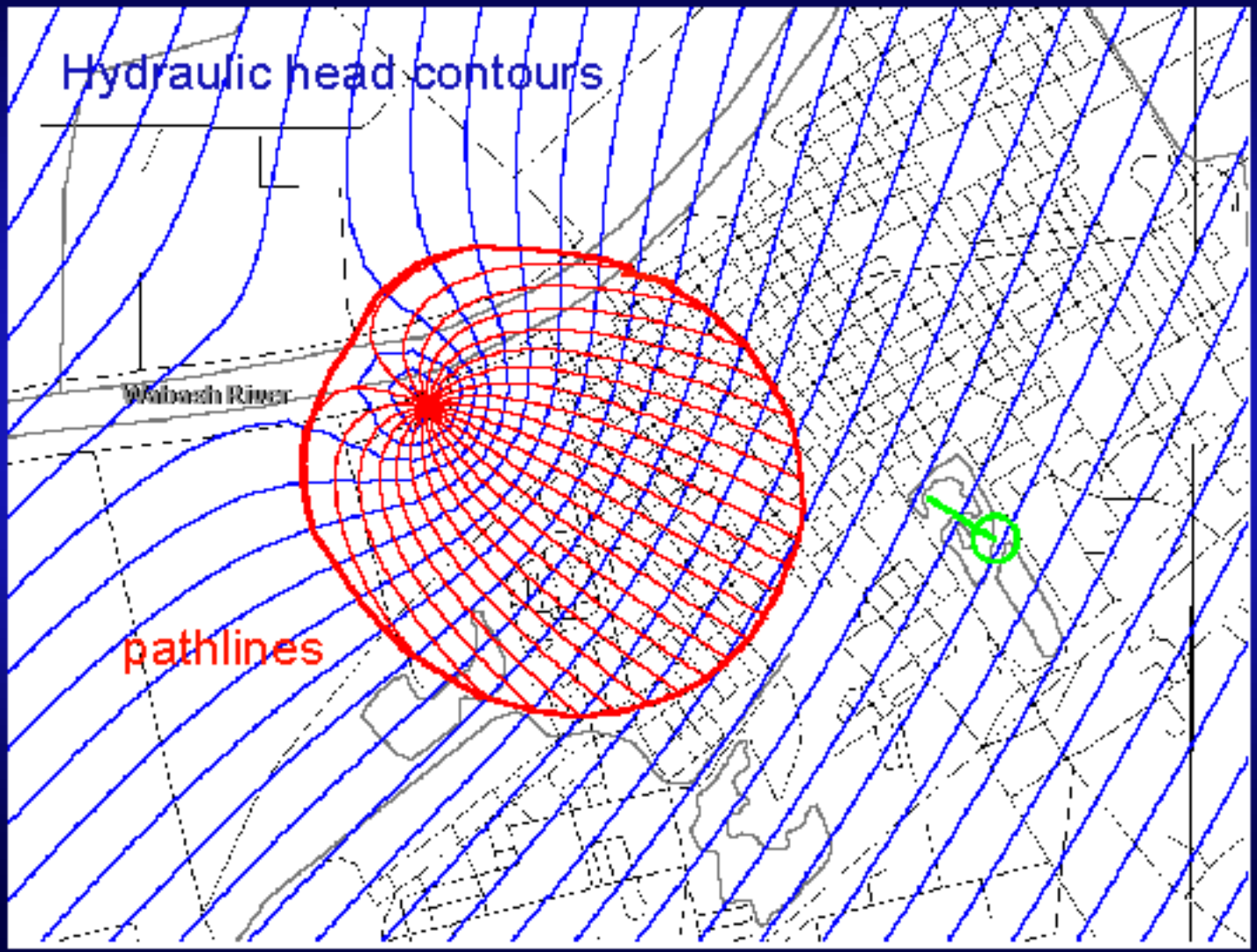
Graphical User Interface and Solver, **Vic Kelson** of Kelson Consulting
Principal Investigator and Help System, **Henk Haitjema** of Haitjema Consulting
Project Officer, **Steve Kraemer** of US Environmental Protection Agency

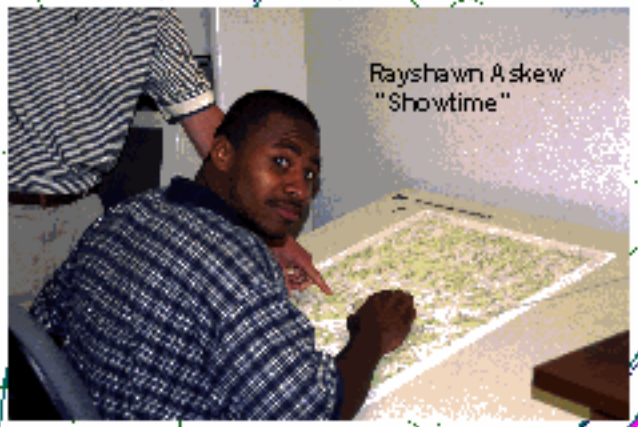

Vincennes
wellfield
Based on
USGS DLG

Calculated Fixed Radius



Well in uniform flow field

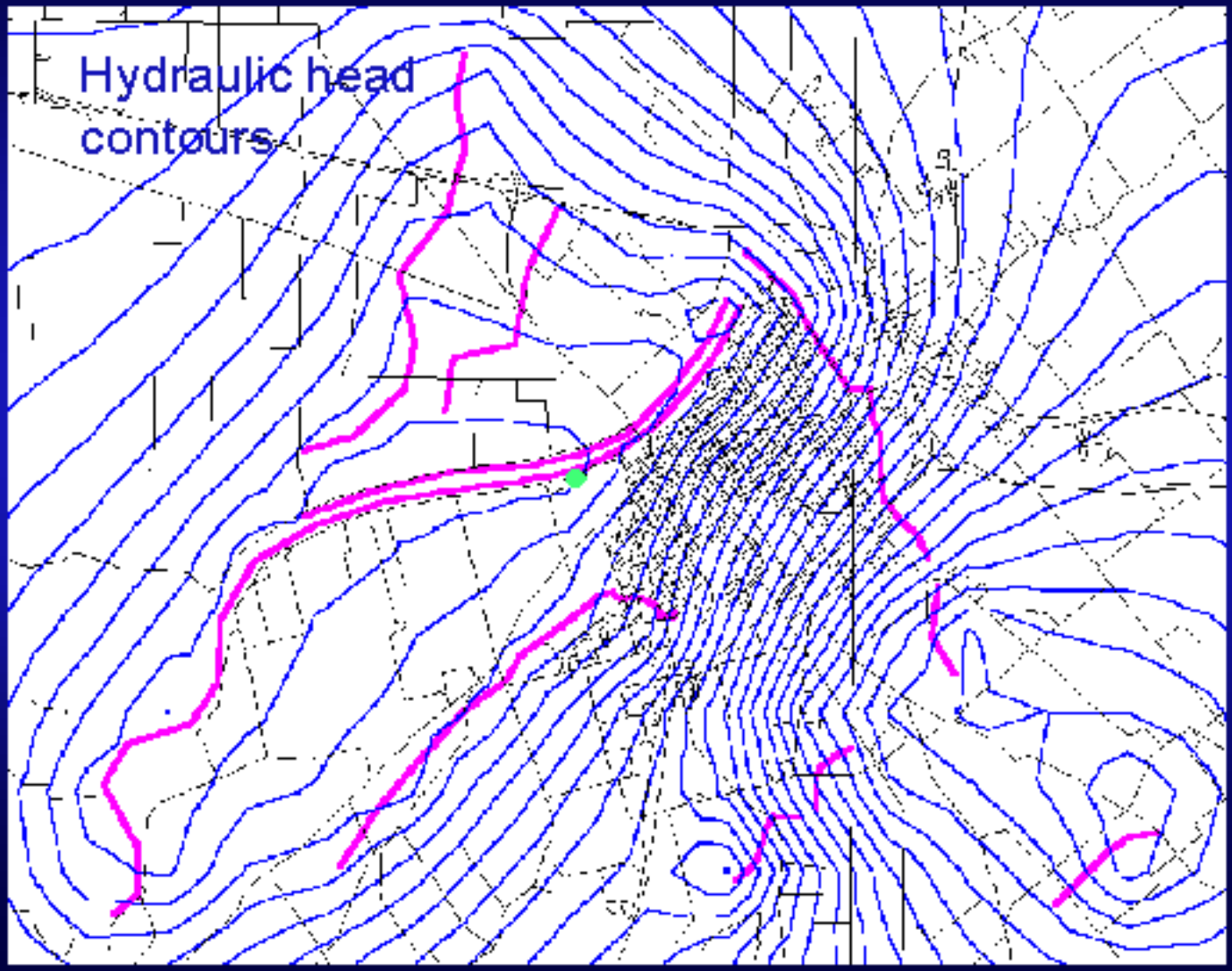




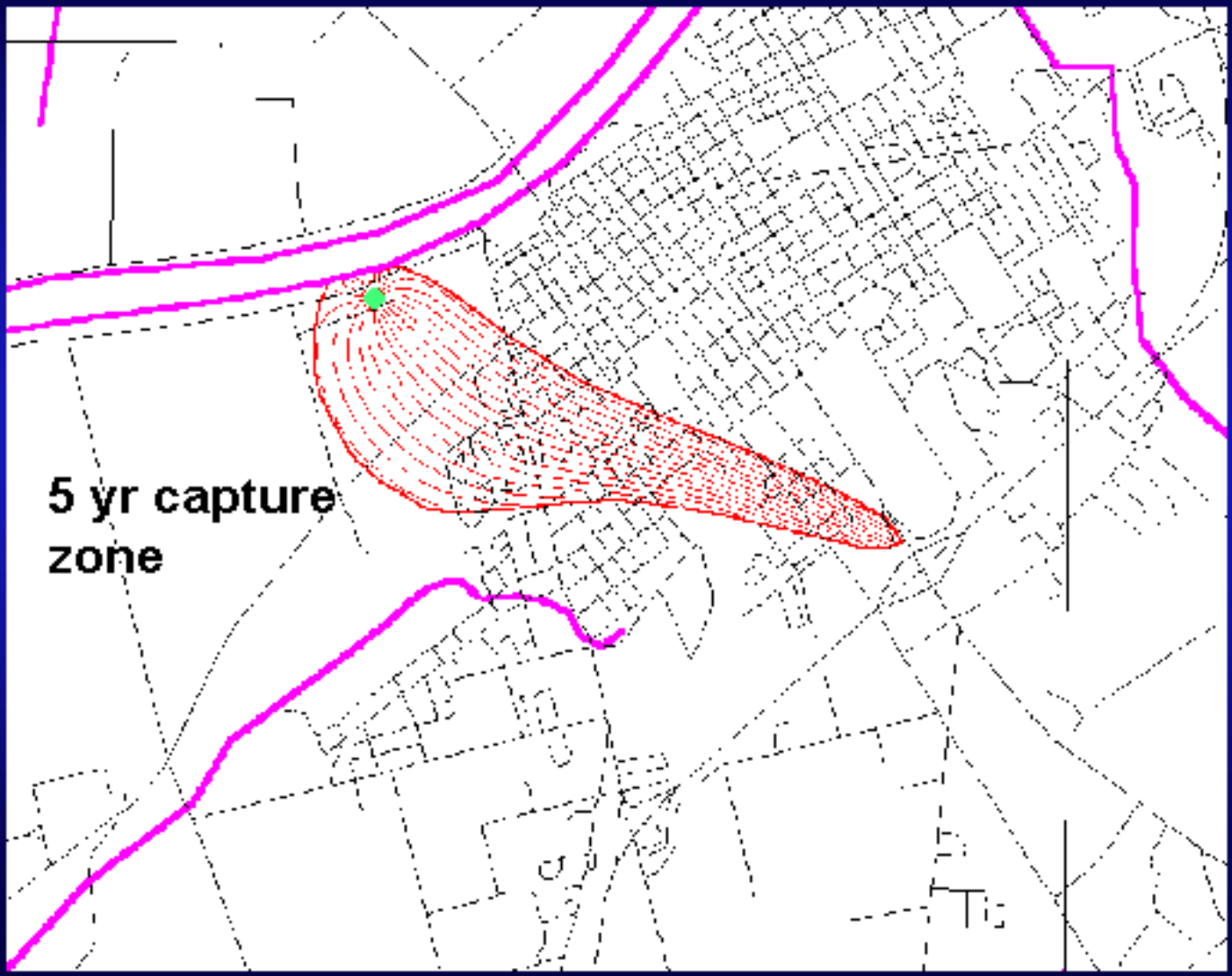
well

Linesinks

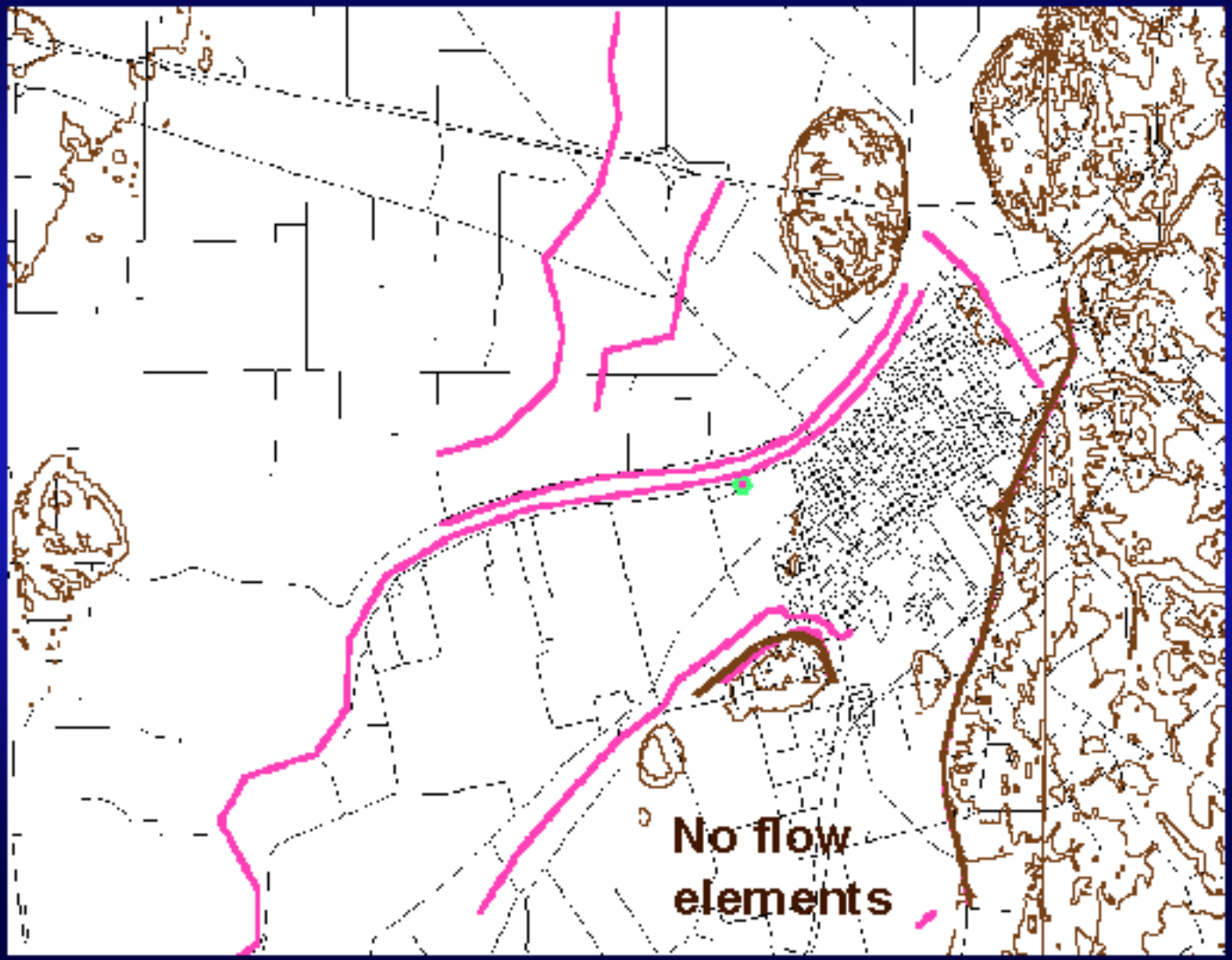
Geohydrologic boundaries



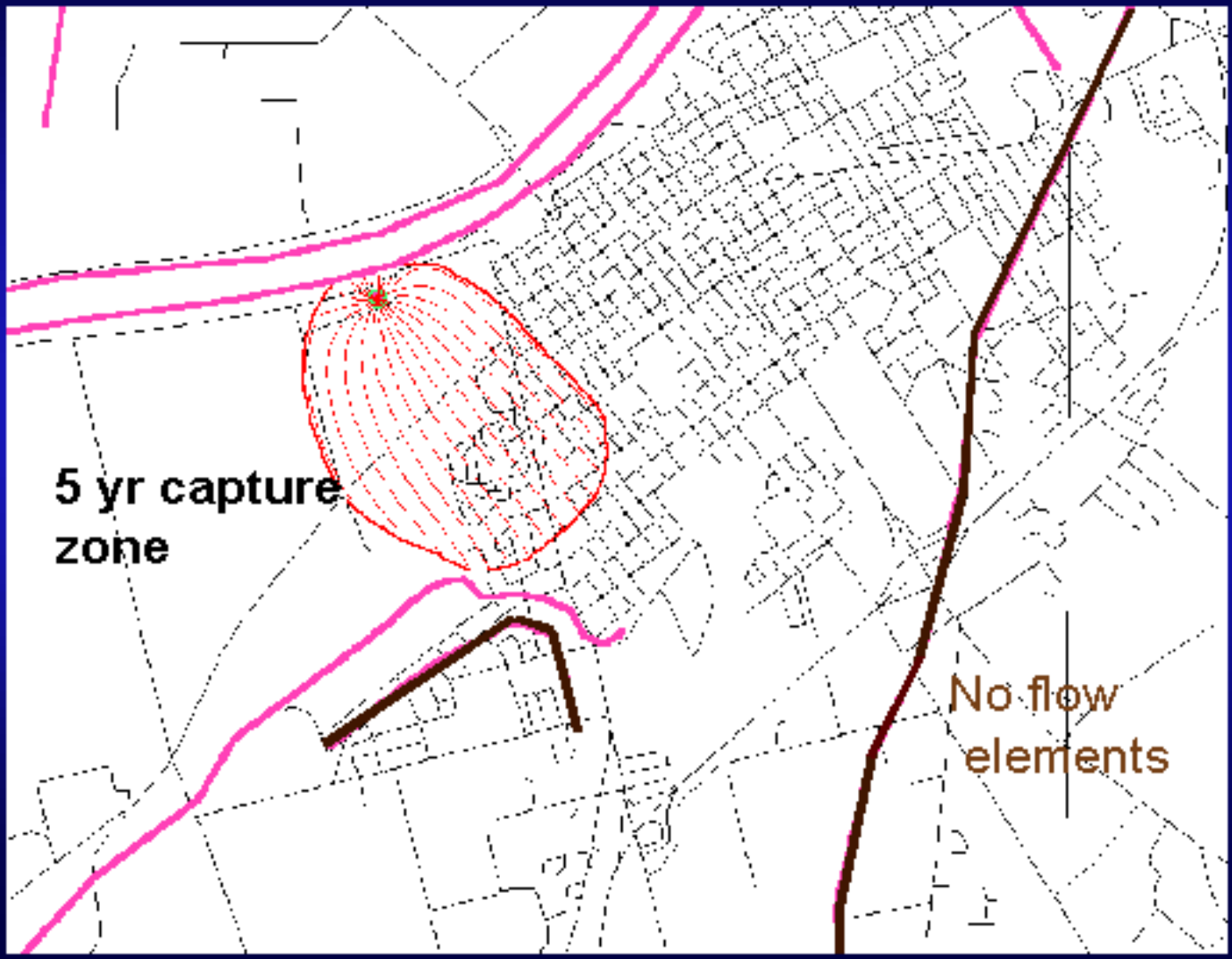
Capture Zone - hydrologic boundaries



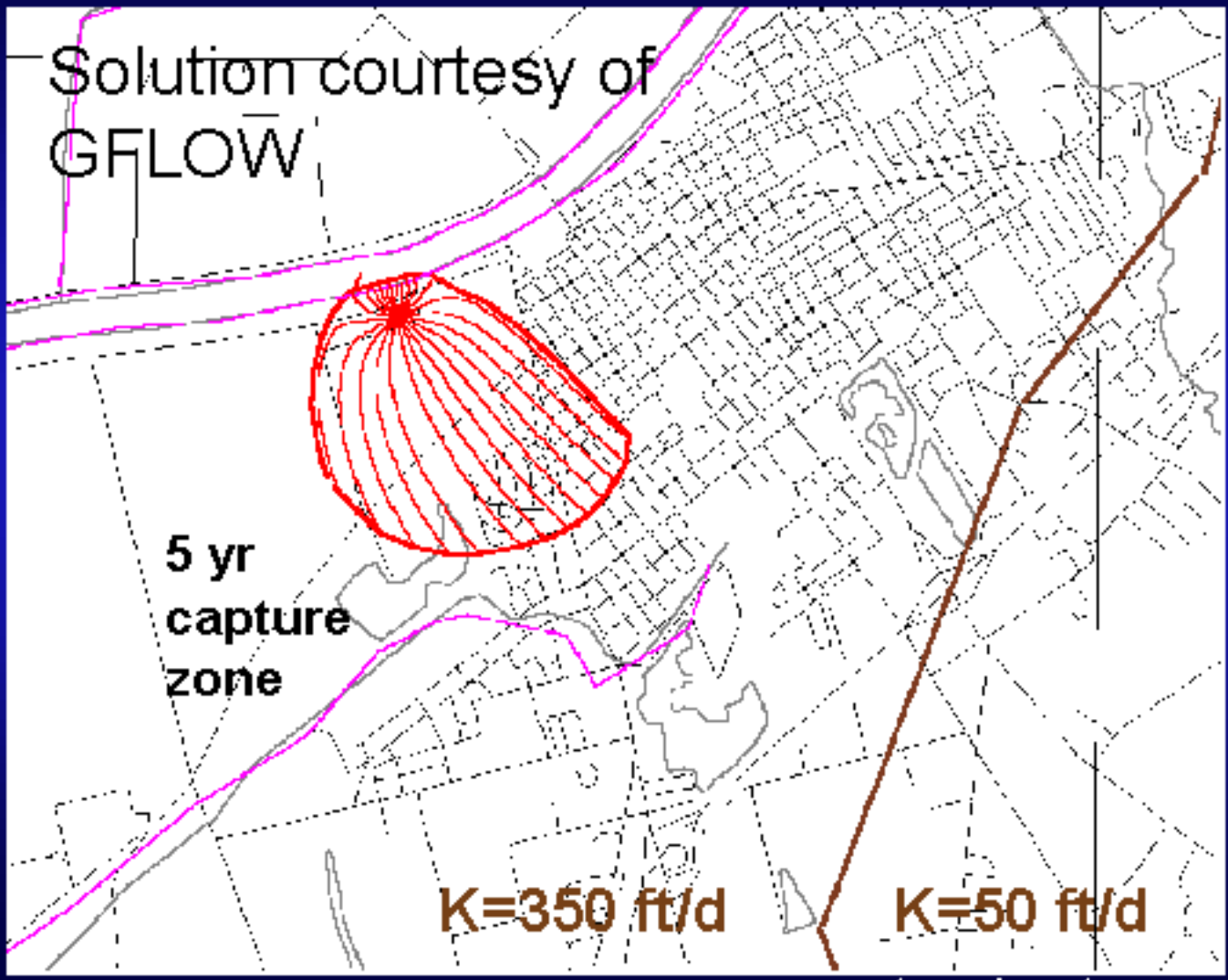
Geologic boundaries



Capture Zone - geologic boundaries



Capture Zone - geologic boundaries



concept good, next parameters